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ABSTRACT

This report presents the findings of a survey of a nationally representative sample of school districts on high school academic requirements and achievement. A survey questionnaire was sent to 571 school districts and a 93 percent response rate was obtained. Information was gathered on the following topics: (1) time spent in school; (2) credits required for graduation; (3) basic course requirements; (4) homework requirements; (5) inservice teacher training requirements; (6) minimum competencey test requirements for teachers; (7) minimum competency test requirements for students; (8) activities rated as highly important to improving achievement; (9) implementation of activities to improve academic achievement; and (10) plans for implementing activities to improve academic achievement. Data from the survey are presented on tables accompanied by brief narrative summaries. (JD)



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Academic Requirements Achievement in High Schools 1982

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FRSS Report No. 18

- According to district administrators, the typical high school student averaged 5 hours of credit classes per day in the 1981-82 school year.
- On the average, districts required a total of 19.8 gredits for graduation, or about 5 credits per year for the typical 4-year program. Districts reported an average of 21.7 credits were normally completed by graduating students--about 2 more than the average number required.
- Included in the total of 19.8 credits were average requirements of 3.6 credits in English/language arts, 2.6 in social studies/history, 1.7 in mathematics, 1.6 in science, less than 0.1 in foreign languages, and 1.7 in physical education/health.
- Minimum competency tests were required for gradua ion in one-fourth of the districts.
- About one-fourth (23 percent) of the districts had a formal policy requiring the regular assignment of homework at the senior high school level.
- Inservice teacher training for subject matter competence was required by 22 percent of the districts.
 - Only 13 percent of all districts required minimum competency tests for teachers.

The American College Testing (ACT) Program college aptitude test was more widely administered in 61 percent of the districts, while the Scholastic Aptitude Tests (SAT) were administered to more students in the

remaining 39 percent of the districts. Almost half of all seniors (46 percent) took either the ACT or the SAT.

- The average district score was 19.0 on the ACT, 461 on the mathematics portion of the SAT, and 433 on the verbal portion of the SAT.
- About half of the high school graduates (43 percent) planned to attend 2- or 4-year colleges.
 - Of eight listed activities to improve high school student achievement, administrators gave the highest ratings to increasing daily attendance (66 percent), increasing the number of credits required in core subjects (47 percent), and establishing/increasing the number of study skills courses (47 percent). Establishing/increasing minimum competency requirements for graduation and requirements for inservice teacher training were rated as highly important by 29 and 28 percent of the districts, respectively. The other activities (establishing/ increasing minimum competency tests for teachers, increasing the amount of homework, and extending the school day or year) were rated highly im-ortant by less than 10 percent of the districts.
 - Nine out of 10 districts 191 percent) reported implementing one or more of the eight listed activities to bolster achievement between fall 1979 and spring 1982. Generally, implementation rates corresponded to ratings of high importance.
 - Survey responses often differed by district characteristics—enrollment size, metropolitan status, and geographic region.

(Based on a nationally representative sample of school districts weighted to national estimates.)

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Academic Requirements and Achievement in High Schools 1982

FRSS Report No. 15

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4

U.S. Department of Education William J. Bennett Secretary

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National Center for Education Statistics

"The purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall ... collect, collate, and, from time to time, report full and complete statistics on the conditions of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; ... and review and report on education activities in foreign countries."-Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e-1).

This report was prepared for the National Center for Education Statistics by Westar, Inc. under Contract Number 300-82-0166

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- No. 16-- Survey of Teacher Education: Perceptions of Methods for Improvement, Winter 1982-83



FOREWORD

This report presents the findings of a nationally representative sample of school districts on high school academic requirements and achievement. The study was requested by the National Commission on Excellence in Education (NCEE), which was established by the Secretary of Education in response to concerns about the quality of American education. The data were needed to inform the NCEE about high school academic requirements and school district efforts to improve student achievement.

The survey was conducted by the National Center for Education Statistics (NCES) in fall 1982 through its Fast Response Survey System (FRSS), and the preliminary results were shared with the public in an early release in April 1983. The FRSS was established to quickly collect and present findings on issue-oriented data needed for planning, policy, or legislative considerations.

This report is the 15th in the FRSS series and will be useful to education officials as well as to organizations and individuals concerned with

Emerson J. Elliott Administrator

June 1985

ACKNOWLEDGMENTS

This survey was conducted for the National Commission on Excellence in Education through the Office of Educational Research and Improvement, U.S. Department of Education.

The survey was supported by the Council of Chief State School Officers (CCSSO) through its Committee for Evaluation and Information Systems (CEIS). The CEIS Fast Response Panel, chaired by Garth Yeager (Illinois) and composed of Charles Lloyd (Utah), George Malo (Tennessee), Sally Pancrazio (Illinois), and George Rush (CCSSO), offered numerous suggestions that improved the questionnaire.

A number of the staff of the National Center for Education Statistics (NCES) contributed to this survey, especially Robert Thomas. The authors acknowledge with gratitude the assistance of the FRSS State Coordinators, who facilitated the data collection, and the respondents who voluntarily provided the data.

The survey was conducted by Westat, Inc., a research firm in Rockville, Maryland, under contract to NCES. The Westat project team included Dianne Walsh, John Burke, Frances Cohen, and Lucinda Gray.





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.. Over the past three decades, a number of reports expressing concern about the quality of American education have appeared in books, professional journals, and major newspapers and magazines. In recent years, public concern about the quality of American education has reached a new Many facts have been cited high. wnich suggest an overall decline in the quality of public educations example, average scores on college . placement tests have decreased steadily during the påst 20 years; a sizeable portion of students graduating from high school are reported to be functionally illiterate; and cross-cultural comparisons frequently show U.S. students lagging behind

In response to these concerns, the U.S. Secretary of Education established a National Commission on Excellence in Education (NCEE or the Commission) whose responsibilities included: assessing the quality of teaching and learning in the Nation's schools; identifying methods and programs for improving achievement, particularly among teenage students; and reporting these findings and recommendations to the Secretary.

their counterparts in other developed

countries.

To fulfill its responsibilities, the NCEE reviewed the education literature on achievement and held meetings throughout the country to gather testimony from educators and others interested in the quality of American education. In addition, the Commission sought current, nationally representative data on high school requirements and achieve-At the request of the NCEE, tne National Center for Education Statistics (NCES) conducted a survey of school districts in fall 1982 to obtain the following information:

- Credits¹ required for graduation from high school.
- Wnether districts had policy requirements for

competency tests for graduation, or assignment of homework.

Whether districts had policy requirements for teachers, such as inservice training and minimum competency tests.

Average district scores on collège placement tests and estimated percent of graduates that planned to attend 2- or 4-year colleges.

District perceptions regarding the importance of various activities intended to improve achievement.

. This report is a summary of the information collected in response to that request. The estimates in this report are based on sample data that have been weighted to produce national estimates. Because these estimates are subject to sampling variability, many numbers in the text have been rounded; however, the numbers in the tables are the actual est'mates. Percents and averages have been calculated based on the actual estimates rather than the rounded values. Throughout the report, estimates of averages are means per district, not means per student.

Data are presented in the following categories: all districts with high schools, and districts classified according to enrollment size, geographic region, and metropolitan status (rural, suburban, and urban). Since 82 percent of the rural districts are small (less than 2,500 students) and 62 percent of the urban districts are large (10,000 or more students), the patterns of responses by size and metropolitan status often are similar.

The methodology and sampling error are discussed in appendix I; the survey questionnaire is presented in appendix II (inside back 'cover).

¹For the purpose of this survey, a credit was defined as a class scheduled for a minimum of 200 minutes per week (275 minutes for a laboratory chass) for 36 weeks.



Requirements for Students

A major concern of the Commission was school requirements of students. Requirements cited were time spent in school, credits required for graduation, basic course requirements, and homework. These requirements and competency testing are addressed in this section.

Time Spent in School

Districts were asked to report the number of periods per day a typical student takes for credit and the average number of minutes in each class period. The range of credit class periods reported was 4 to 8 per day, with an average of 8.8 (see ta le 1). There was little variation in responses by district size or metropolitan status, but there were slight regional differences. The Southeast region averaged the lowest number of credit class periods taken (5.5), while the west and Southwest region averaged the highest (6.1).

The average number of minutes per credit class period was 51, with a range of 45 minutes in the North Atlantic to 54 minutes in the Soutreast (not on table).

Based on the number of periods a typical student takes for credit and the number of minutes per period, high school students in 1981-82 averaged 298 minutes or 5 hours of credit classes each school day. The amount of time spent in these classes, however, varied widely among districts, from a high of 350 minutes (5.8 hours) or more in 10 percent of the districts, to a low of 240 minutes (4 hours) or less in another 13 percent.

Some small differences were found by district size and metropoli-

Districts were asked to respond to survey questions only as they applied to high schools in the district. In addition, responses to questions regarding policies or requirements were intended to reflect the combined effect of State and district requirements and practices.

tan status, but differences of up to one hour a day were found among geographic regions. District administrators in the West and Southwest reported an average of 5.4 hours of daily credit class time, while those in the North Atlantic reported an average of 4.3 hours.

Credits Required for Graduation

Table 1 also presents findings on the total credits required for graduation, the usual and maximum number of credits completed, and the number of core subjects taken in the senior year. On the average in 1981-82, districts required 19.8 credits for graduation, or about 5 credits per year for a typical 4-year program. 4 However, districts varied widely on the issue of graduation Some districts (5 perrequirements. cent) required as many as 24 credits, while others (also about 5 percent) required as few as 16.5 credits. Little variation occurred by district sizs, metropolitan status, or region with the exception that districts in the West and Southwest required an average of about 2 more credits over a 4-year period than districts inother regions. This finding is consistent with the fact that districts in this region had slightly more credit class periods per day.

On the average, districts reported that students normally completed 21.7 credits by graduation, about 2 more than the average number required. Districts in the West and Southwest averaged somewhat more (23.2). The average maximum credits that could be acquired without attending summer school or evening courses was 25.3, about 3.5 credits more than the number usually acquired and 5.5 more than the number required.



^{3&}quot;Typical" was defined in the questionnaire as "more than 50 percent of students."

All credits have been converted to a 4-year base.

Table 1.--Avorage number of credit classes and minutes of credit classes per day, credits required for graduation, maximum credits obtainable, usual credits at graduation, and credits in core subjects taken in the senior year, by district characteristics: 50 States and D.C., fall 1982

| | Average number , | | | | | | | | |
|-------------------------------------|----------------------------------|---|---|--------------------------------|-----------------------------------|---|--|--|--|
| District characteristics | Credit classes per dayl | Minutes of credit classes per day ² | Credits ³ required for grad-uation | Maximum credits possible | Usual credits at graduation | Credits in core subjects in senior year | | | |
| Districts with high schools | 5.8 | 298.4 | 19.8 | 25.3 | 21.7 | 2.9 | | | |
| Enrollment size: | • | | • | | | | | | |
| Less than 2,500 | 5.9 5.7 5.7 | 301.0 292.3 295.3 | 19.9 19.5 19.7 | 25.3 25.3 24.3 | 21.8 3 21.4 21.2 | 2.8° 3.1° 2.9° | | | |
| Region: | * | | • | No. | , | · · · · · · · · · · · · · · · · · · · | | | |
| North Atlantic | 5.8 | 259.1 | 19.1 | 26.2 | 21.6 | 3.2 | | | |
| Plains Southeast West and Southwest | 5.8 5.5 6.1 | 298.7 299.2 325.6 | 19.4 19.0 21.4 | 25.4 23.6 25.4 | 21.2 20.2 23.2 | 2,8 s 3.0 2.7 | | | |
| Metropolitan status: | | • | | | * | | | | |
| Rural Suburban, Urban | 5.8 5.8 5.8 | 302.6° - 290.7 294.4 | 19.8 19.9 19.9 | 25.2 25.4 25.0 | 21.6 21.7 21.5 | 2.8 2.9 3.0, 3 | | | |

¹Taken by a typical student, i.e., more than 50 percent of students.

²Calculated from the number of periods a typical student takes for credit and the number of minutes per period.

A credit was defined as a class scheduled for a minimum of 200 minutes per week (275 minutes for a laboratory class) for 36 weeks. All credits have been converted to a 4-year, base.

Districts reported that students took an average of 2.9 credits in core subjects (English/language arts, mathematics, science, social studies/history, and foreign, languages) during the senior year. Regional averages ranged from 2.7 in the West and Southwest to 3.2 in the North Atlantic.

These results indicate that the Nation's public school districts are relatively homogeneous on student credit requirements regardless of size and metropolitan status. However, some regional differences were found. For example, total credits required for graduation differed regionally by as much as 2 credits, and the number of maximum and usual credits completed by graduation differed among regions as well. Districts in the West and Southwest had slightly more credit class periods per day, longer class days, more required credits, and more credits usually completed than districts in other regions.

Basic Course Requirements

The National Commission on Excellence in Education recommended that "State and local high school graduation requirements be strengthened and thit, at a minimum, all students seeking a diploma be required to lay the foundations in the Five New Basics." The following curriculum was recommended: 4 years of English; 3 years of mathematics; 3 years of science; 3 years of social studies; and one-half year of computer science. In addition, for college-bound students, the Commission recommended that 2 years of foreign language be-required.

In 1981-82, districts required an average of 3.6 years of English/language arts, slightly less than the Commission's recommendation of 4 years. Almost two-thirds of the districts (63 percent) reported requiring "4" years of English and one-third (35 percent) required "3" years.6

The national average for required courses in social studies/history was 2.6 years, compared with the Commission's recommendation of 3 years. One-half of the districts required at least "3" years of social studies, and approximately two-fifths required "2" years. Only 10 percent of the districts required less than "2" years.

The Commission recommended 3 years of credit both in mathematics and in science. The survey, however, showed that the average national requirements in these subjects were only 1.7 nd 1.6 years, respectively. ".lf of the districts (48 per-Almos quired "2" years of coursecent) thematics, but 44 percent work i. "1" year or less. Only 8 require percent of the districts required more than "2" years of mathematics. The distribution of science requirements was similar to mathematics: 46 percent of the districts required "2" years of science, 48 percent required "1" year or less, and only 5 percent required more than "2" years.

Table 2 presents a summary of survey responses to questions about the number of credits required in core subject areas. For comparison, a credit corresponds to a year of coursework.

U.S. Department of Education, The National Commission on Excellence in Education, A Nation at Risk: The Imperative for Education Reform. Washington, D.C. U.S. Government Printing Office, 1983.

When there is a reference in quotes to the number of years of coursework, these numbers are defined as follows: "1" year includes responses between 0.51 and 1.50 years' credit; "2" years includes responses between 1.51 and 2.50 years' credit; etc.

Table 2.--Average number of credits required for graduation, by subject area and by district characteristics: 50 State3 and D.C., fall 1982

| District | Credits 1 required for graduation | | | | | | | | | |
|--|-----------------------------------|---|-------------------|---------------------------------------|-------------------------------|---|---------------------------|--|--|--|
| characteristics | Total | Mathe- matics | Science | English/ language arts | Social studios/ history | Foreign languages | Physical education/health | | | |
| NCEE recommendations | - | 3.0 | 3.0 | 4.0 | 3.0 | 2.02 | - 3 | | | |
| All districts with high schools | 19.8 | 1.7 | 1.6 | 3.6 | 2.6 | <.1 | 1.7 | | | |
| Enrollment size: | ۰, ` | | • | | • | | | | | |
| Less than 2,500 2,500 - 9,999 10,000 or more | 19.9 19.5 19.7 | 1.7 1.6 1.7 | 1.6 1.5 1.5 | 3.6 3.7 3.6 | 2.5 2.7 2.6 | <.1 .1 <.1 | 1.7 1.8 1.7 | | | |
| Region: | | ••••••••••••••••••••••••••••••••••••••• | | · ······· · · · · · · · · · · · · · · | | ··· • · · · · · · · · · · · · · · · · · | | | | |
| North Atlantic | 19.1 | 1.7 | 1.5 | 4.0 | 3.0 | .1 | 1.9 | | | |
| Plains | 19.4 19.0 21.4 | 1.4 1.9 1.9 | 1.5 1.7 1.7 | 3.4 3.8 3.6 | 2.5 2.3 2.5 | <.1 .1 <.1 | 1.5 1.5 1.9 | | | |
| Metropolitan status: | | | | | | | • | | | |
| Rural Suburban Urban | 19.8 19.9 19.9 | 1.7 1.6 1.9 | 1.6 1.4 1.6 | 3.6 3.7 3.8 | 2.6 2.6 2.6 | <.1 <.1 .1 | 1.6 1.9 1.9 | | | |

-Not applicable.

A credit was defined as a class scheduled for a minimum of 200 minutes per week (275 minutes for a laboratory class) for 36 weeks. All credits have been converted to a 4-year base.

 $^{^2}$ For college-bound students.

Survey findings showed that requirements for physical education and health courses were the same as for mathematics and science (1.7 credits). Foreign language graduation requirements were almost non-existent, with a national average requirement of less than 0.1 credit. Only 3 percent of all districts reported having requirements for foreign languages.

Course requirements did not vary significantly by district size or metropolitan status, but some differences were found among regions for certain subjects. The Great Lakes and Plains region required less mathematics (1.4 years) than the Southeast or the West and Southwest regions (1.9 years). Social studies requirements in the North Atlantic region (3 years) were greater than those in any of the other regions by at least one-half year.

When combined, these six subjects (mathematics, science, English/language arts, social studies/history, foreign languages, and physical education/health) account for an average of only 11.2 credits, or just slightly more than half the total required for graduation.

Minimum Competency Test Requirements

Administrators in one-fourth of the districts said that their district of State had formal written policies requiring minimum competency tests for high school graduation in 1981-82 (table 3). Of those, 90 percent required tests in mathematics, 80 percent in English/language arts, and 47 percent in other areas, such as reading, writing, and life skills.

Minimum competency test requirements varied in all three district classifications. Proportionately twice as many urban districts (42 percent) as rural districts (19 percent) required these tests for gradu-

ation. Similarly, 47 percent of the large districts had competency test requirements compared with 21 percent of the small districts. Regional differences in competency test requirements were even greater, ranging from 6 percent of the districts in the Great Lakes and Plains to 49 percent in the North Atlantic.

Homework Requirements

The Commission recommended that "significantly more time be devoted to learning the New Basics." As a suggestion for implementing this recommendation, the report stated that, "Students in high schools should be assigned far more homework than is now the case." Districts were asked whether they had formal policies requiring that homework be assigned, reviewed, and discussed with students.

Nationwide, about 20 percent of the districts had formal policies requiring regular assignment of homework at the elementary, junior high, and senior high levels (table 4).

Large districts and urban districts were more likely to have formal homework policies than were small districts and rural districts. For example, at the senior high level, 36 percent of the large districts had formal homework policies, compared with only 20 percent of the small districts. Formal homework policies at the senior high level were most prevalent in North Atlentic districts (36 percent); in other regions, between 16 percent (Southeast) and 22 percent (Great Lakes and Plains) of the districts had policies.

Administrators in about half the districts (55 percent) reported that homework was required to be reviewed by a teacher or teaching assistant, but only one-third of the districts required that results of homework be discussed with students.



Table 3.--Number and percent of districts requiring minimum competency tests for graduation and subject areas in which tests are required, by district characteristics: 50 States and D.C., fall 1982

| District | Districts with high | requirir | ricts g minimum ncy tests | Areas in which tests are required (in percents 6f column 3) | | | |
|--|------------------------|-----------------------|---------------------------------|---|------------------------------|----------------|--|
| characteristics | *chool * | Number | Percent ¹ | Mathe- matics | English/ language arts | Other | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Total | 11,370 | 2,885 | 25 | 91, | 80 | 47 | |
| Enrollment size: | | | | • | | | |
| Less than 2,500 2,500 - 9,999 10,000 or more | 7,787 2,942 641 | 1,607 978 301 | 21 33 47 | 90 90 92 | 75 87 88 | 48 42 50 | |
| Region: | | | | | •• | | |
| North Atlantic Great Laves and | 2,079 | 1,015 | 49 | 93 | 91 | 29 | |
| Plaine | 4,693 1,688 | 288. 457 | 6 27 | 95 99 | 96 86 | 47 23 | |
| West and Southwest | 2,911 | 1,125 | 39 | 83 | 64 | 72 | |
| Metropolitan status: | | | | | | | |
| Rural Suburban Urban | 7,280 3,725 366 | 1,359 1,371 155 | 19 37 42 | 90 90 97 | 81 78 91 | 39 53 53 | |

¹Based on districts with high schools (column 2).

Table 4.--Percent of districts with policies requiring homework assignment, review, and discussion, by district characteristics: 50 States and D.C., fall 1982

| District | Districts with high | Distric policies re assignment | ts with for a contract to the | egular | Districts requiring homework to | Districts requiring that the results of | |
|--|----------------------------------|--------------------------------|---|-------------------------|---|--|--|
| characteristics | schools | Elementary level | Junior high level | Senior high level | be reviewed by teacher/ teaching assistant | .homework assignments be discussed with students | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | | | (In p | percents | of column 2) | | |
| Total | 11,370 | 20 | 22 | 23 | 55 | . 34 | |
| Enrollment size: | | | | | | | |
| Less than 2,500 2,500 - 9,999 10,000 or more | 7,787 2,942 641 | 16 26 30 | 19 27 35 | 20 29 36 | 56 52 44 | 33 35 33 | |
| Region: | | | | | | | |
| North Atlantic | 2,079 4,693 1,688 2,911 | 27 20 20 14 | 36 20 16 19 | 36 22 16 19 | 53 56 55 55 | 35 39 24 30 | |
| Metropolitan status: | | | | | | | |
| Rural | 7,280 3,725 366 | 18 22 36 | 19 27 46 | 19 29 40 | 56 51 52 | 35 32 34 | |

 $^{^2}$ Such as reading, writing, life skills.

Requirements for Teachers

In recent years, concern has been expressed about the quality of teachers. The Commission reported that "too many teachers are being drawn from the bottom quarter of graduating high school and college students," and that "half of the newly employed mathematics, science, and English teachers are not qualified to teach these subjects."

Educators and legislators have proposed many methods to improve the quality of teachers and teaching. School districts often focus on two of these methods: requirements for inservice teacher training, and minimum competency testing of teachers.

Inservice Teacher Training Requirements

Administrators in about one-fourth of the districts (22 percent) reported that their district or State had formal written policies requiring inservice teacher training for subject matter competence in 1981-82 (table 5). Of these districts, 92 percent required training in mathematics, 92 percent in English, and 75 percent in science.

As in the case of student testing and homework requirements, inservice teacher training requirements were more prevalent in large and urban districts (33 and 34 percent)

than in small and rural districts (20 and 23 percent). Regionally, inservice training requirements ranged from 16 percent of the districts in the Great Lakes and Plains to 31 percent in the Southeast.

Minimum Competency Test Requirements for Teachers

Only 13 percent of all districts indicated that the district or State required new or already employed teachers to pass a minimum competency test (table 6). Of these districts, about three-fourths required testing in mathematics and English (74 and 76 percent, respectively), 86 percent in general knowledge, and 66 percent in science.

Proportionately more large districts (26 percent) than small districts (10 percent) had competency test requirements for teachers, but no differences were found between urban (14 percent) and rural districts (15 percent). Regional differences were particularly striking. Competency testing of teachers was seldom required by districts in the North Atlantic and in the Great Lakes and Plains (2 percent or less). By contrast, almost one-fourth of the districts in the West and Southwest (21 percent) and about half of the districts in the Southeast (48 percent) required tests.



Table 5.--Number and percent of districts requiring inservice teacher training for subject matter competence, and areas in which inservice training is required, by district characteristics: 50 States and D.C., fall 1982

| District coaracteristics | Districts | requ inse | ricts iring rvice training | Area in which inservice training is required (in percents of column 3) | | | |
|--------------------------|-----------|--------------|-------------------------------------|--|------------|------------------------------|--|
| | schools | Number | Percent* | Mathe- matics | Science | English/ language arts | |
| 1 | 2 | . 3 | 4 | 5 | 6 | 7 | |
| Total | 11,370 | 2,450 | 22 | · 92 | 75 | 92 | |
| Enrollment size: | | | | | | | |
| Less than 2,500 | 7,787 | 1,533 | 20 | 90 | 6 <u>9</u> | 88 | |
| 2,500 - 9,999 | 2,942 | 704 | 24 | 96 | 85 | 100 | |
| 10,000 or more | 641 | 213 | - 33 | 93 | 87 | . 92 | |
| Region: | | | | | | | |
| North Atlantic | 2,079 | 364 | 18 | 73 | 58 | . 98 | |
| Great Lakes and Plains | 4,693 | 765 | 16 | 99 | 77 | 90 | |
| Southeast | 1,688 | 523 | 31 | 85 | 70 | 93 | |
| West and Southwest | 2,911 | 799 | 27 | 99 | . 85 | 91 | |
| detropolitan status: | ٨ | ٠ | | | | • | |
| Rural | 7,280 | 1,703 | 23 | 91 | 74 | 91 | |
| Suburban | 3,725 | 624 | 17 | 95 | 74 | 92 | |
| Urban | 366 | 124 | 34 | 92 | 91 | 99 | |

^{*}Based on districts with high schools (column 2).

Table 6.--Number and percent of districts requiring minimum competency tests for teachers, and subject areas in which tests are required, by district characteristics: 50 States and D.C., fall 1982

| District | Districts with high | minimum | s. requiring competency or teachers | Areas in which minimum competency tests for teachers are required (In percents of column 3) | | | | |
|--|-----------------------|--------------------|---|---|----------------|------------------------------|----------------------|--|
| characteristics | schools | Number | Percent* | Mathe- matics | Science | English/ language arts | General knowledge | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Total | 11,370 | 1,481 | , 13 | 74 | 66 | 76 | 86 | |
| Enrollment size: | | | | | | | | |
| Less than 2,500 2,500 - 9,999 10,000 or more | 7,787 2,942 641 | 800 511 170 | 10 17 26 | 80 36 71 | 76 57 48 | 80 68 79 | 86 83 91 | |
| Region: | | | | | | | | |
| North Atlantic Great Lakes and | 2,079 | 38 | 2 | 100 | 100 | 100 | 3 | |
| Plains Southeast West and South- | 4,693 1,688 | 19 808 | 1 48 | 100 79 | 95 73 | 100 82 | 100 87 | |
| west | 2,911 | 616 | 21 | 65 | 54 | 65 | 88 | |
| Metropolitan status: | | | | | | | : | |
| Rural Surburban Urban | 7,280 3,725 366 | 1,084 344 53 | 15 9 14 | 69 86 100 | 67 61 83 | 71 88 100 | 88 76 98 | |

^{*}Based on districts with high schools (column 2).

Achievement

The College Board's Scholastic Aptitude Tests (SAT) and the American College Training (ACT) Program's college aptitude tests are the major college placement tests used in the United States. These tests also have been used as measures of effectiveness for high school programs. While this use has been criticized, 7 these tests continue to be used to assess school effectiveness because other standardized measures are lacking.

Over the past two decades, scores on these standardized tests have declined steadily. As the NCEE reported, between 1963 and 1980. average scores on the verbal portion of the SAT dropped more than 50 points (from 479 to 424), while scores on the mathematics portion dropped almost 40 points (from 501 to 468).8 Average scores on the ACT followed # similar pattern: scores dropped from an average of 19.9 in 1970 to an average of 18.4 in 1982.7° The decline of scores on these standardized tests was one of the factors that led the NCEE to conclude that the Nation's education system was "at risk." In this' survey, district achievement was assessed by two items: average scores on either the SAT or ACT (the test more widely administered in the district) and the percentage of graduates intending to go on to 2or 4-year colleges.

The ACT was more widely administered in 61 percent of the districts, while in 39 percent, more students took the SAT (not on table). There were distinct regional variations on which test was administered the most. In the North Atlantic, the SAT was more widely administered in

almost all (94 percent) of the districts. The reverse was true in the Great Lakes and Plains, where 88 percent of the districts reported ACT scores. The ACT was more widely administered in 66 percent of the districts in the Southeast and 55 percent in the West and Southwest.

About half of the seniors (46 percent) in all districts took either the SAT or ACT in 1981-82 (table 7), although the proportions per district ranged from 1 to 100 percent. The average district score was 461 on the mathematics portion of the SAT and 433 on the verbal portion. On the ACT, the average district composite score was 19.0.

Possible student scores on the ACT range from 1 to 36. The ACT Program reported an average composite score for students tested during the 1981-82 school year of 18.4. Student scores on the SAT mathematics or verbal tests may range from 200 to 800. The College Entrance Examination Board reported an average mathematics SAT score of 467 and a verbal SAT score of 426 for college bound seniors of the class of 1982. Therefore, the average student scores and the average district scores from this study are quite close for both the ACT and SAT.

Individual district scores on these achievement tests varied greatly. For example, of the districts reporting SAT scores, 10 percent reported average mathematics scores of 400 or lower, while another 10 percent reported averages of 520 or higher. Similarly, of the districts reporting ACT scores, 12 percent had composite averages of 16.0 or lower, while another 12 percent averaged 22.0 or higher.

Boyer, E. L. High School: A Report on Secondary Education in America.

New York: Harper and Row, 1983.

⁸U.S. Department of Education, The National Commission on Excellence in Education. A Nation at Risk: The Imperative for Educational Reform. Washington, D.C. U.S. Government Printing Office, 1983.

Table 7.--Average SAT scores, ACT scores, and percentages of seniors taking SAT or ACT, and graduates planning to attend 2- or 4-year colleges, by district characteristics: 50 States and D.C., fall 1982

| • | L | | Average | | |
|-----------------------------------|--------------------------|---------------------|------------------------|--|--|
| District characteristics | Mathematics SAT score | Verbal SAT score | Composite ACT score | Percent of seniors taking SAT or ACT test | Percent of graduates planning to go to college |
| All districts with high schools | 461.1 | 432.8 | 19.0 | 46.3 | 48.8 |
| Enrollment size: | - | | _ | | |
| Less than 2,500 | 455.9 | 433.7 | 19.1 | 46.9 | 48.2 |
| 2,500 - 9,999 | 467.0 | 433.0 | 18.5 | 45.5 | 49.5 |
| 10,000 or more | 465.4 | 427.2 | 18.4 | 42.5 | 52.4 |
| egion: | | | | | |
| North Atlantic Great Lakes and | 464.0 | 439.7 | (*) | 48.3 | 51.4 |
| Plains | (*) | (*) | 19.8 | 45.4 | 47.4 |
| Southeast | 421.6 | 388.2 | 17.5 | 43.2 | 42.3 |
| West and Southwest | 466.3 | 440.2 | 17.8 | 48.1 | 53.0 |
| etropolitan status: | | | | | • |
| Rural | 455.3 | 424.9 | 19.2 | 47.2 | 47.7 |
| Suburban | 467.6 | 442.0 | 18.6 | 44.8 | 50.4 |
| Urban | 449.6 | 413.3 | 18.4 | 44.7 | 54.3 |

^{*}Estimates are unreliable because they are based on too few districts.

Note. --Districts reported averages only for the more widely administered test. By size, districts that reported using the SAT were about 29 percent of the small districts, 58 percent of the medium-sized district, and 65 percent of the large districts. In the remaining districts, the ACT was the more widely administered test. By region, SAT districts were 94 percent of the North Atlantic, 12 percent of the Great Lakes and Plains, 34 percent of the Southeast, and 45 percent of the West and Southwest. By metropolitan status, SAT districts were 63 percent of urban districts, 57 percent of suburban districts, and 28 percent of rural districts.

Achievement test scores also differed by district characteristics. For instance, urban districts reported lower average SAT scores than suburban districts, although average ACT scores were about equal. Districts in the Southeast reported the lowest SAT scores on both the mathematics and verbal portions of the test. Districts in the Great Lakes and Plains reported the highest ACT scores.9

District administrators reported that about half (49 percent) of their graduates planned to go to 2- or 4-year colleges. Again, there was

variation among districts. Ten percent of the districts reported one-fourth or fewer graduates planned to go to college. Another 10 percent reported three-fourths or more planned to attend.

Proportionately more graduates in urban districts (54 percent) intended to go to college than graduates in rural districts (48 percent). By region, the proportions planning to attend college ranged from highs of 53 and 51 percent in the West and Southwest and in the North Atlantic, respectively, to 42 percent in the Southeast.

North Atlantic districts were excluded from the ACT regional analyses, and Great Lakes and Plains districts were excluded from the SAT analyses because the numbers of districts reporting scores were too small to provide reliable estimates.

Activities to Improve Achievement

District administrators were asked to rate the relative importance (high, medium, or low) to district policy of each of the following activities designed to improve academic achievement in high schools:

- Increase daily attendance,
- Increase credit requirements in core subjects,
- Establish/increase courses to improve students' study skills/habits,
- e Establish/increase minimum competency requirements for graduation,
- Establish/increase requirements for inservice teacher training for subject matter competence,
- Increase amount of homework.
- Extend the school day or the school year, and
- Establish/increase minimum competency tests for teach-

Administrators were asked whether their districts had implemented any of these activities between fall 1979 and spring 1982, and whether they planned to implement the activities by the 1984-85 school year.

Activities Rated as Highly Important

Increasing daily attendance was rated as the most important way to improve high school achievement; two-thirds of the district administrators rated this activity as highly important (table 8). This finding about daily attendance probably reflects the general attitude that more time

in achool will improve academic achievement. Although two-thirds of the districts rated this activity as highly important, nationwide the per district absentceism rate for high schools was only 6 percent. Individual districts ranged from 1 to 23 percent (not on table).

Increasing core credit requirements and improving students' study skills were also rated as highly important means of improving achievement. Almost 50 percent of the administrators strongly favored increasing the number of credits required in core subjects and establishing or increasing the number of study skills courses offered.

More than one-fourth of the administrators rated minimum competency requirements for graduation and expanded inservice training for teachers as very important. Less than 10 percent rated the remaining alternatives (minimum competency tests for teachers, increasing the amount of homework, or increasing the achool day or year) as highly important. However, nearly 50 percent believed that increasing homework was at least moderately important (not on table).

Administrators in large districts were more likely to rate increases in attendance, minimum competency requirements for graduation, and inservice training as very important compared with administrators in small districts. Urban district responses resembled those of large districts and rural responses corresponded to those of small districts.

Responses also differed by region. For example, districts in the Great Lakes and Plains were less likely to rate study skills courses and minimum competency requirements as highly important compared with





Table 8.--Percent of districts rating activities to improve academic achievement in high schools as highly important, by district characteristics: 50 States and D.C., fall 1982

| | | High importance for establishing/increasing: | | | | | | | | |
|--|-----------------------------------|--|---|----------------------------|--|---------------------------------------|--|-------------------------------|--------------------------|--|
| District characteristics | Districts with high schools | Daily attend- . ance | Credit require- menta- in core aubjects | Study skills courses | Minimum competency require- ments for graduation | In- service teacher training | Minimum compe- tency tests for teachers | Amount of home- work | School day or year | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | | | | (1, | p percents o | f column 2 |) | | | |
| Total | 11,370 | 66 | 47 | 47 | 29 | 28 | , 9 | 74 | 5 | |
| Enrollment size: | | | | | | | | | | |
| Le : than 2,500 2,500 - 9,999 10,000 - or more . | 7,787 2,942 641 | 63 69 83 | 45 51 57 | 45 51 46 | 25 34 52 | 23 35 49 | 8 11 14 | 4 14 14 | 4 6 12 | |
| Region: | | | | | | | | | | |
| North Atlantic Great Lakes and | 2,079 | 62 | 58 | 53 | 35 | 22 | 3 | 8 | 3 | |
| Plains | 4,695 1,688 | 57 74 | 40 48 | 38 49 | 19 44 | 21 37 | 4 25 | 4 9 | 3 4 | |
| West and South- | 2,911 | 79 | 51 | 56 | 31 | 38 | 13 | 10 | 8 | |
| Metropolitan status: | | | | | | | | | | |
| Rural | 7,280 3,725 366 | 63 69 90 | 43 54 59 | 4ዩ 43 51 | 25 35 47 | 28 26 45 | 8 11 5 | 6 8 12 | 3 8 14 | |

districts in the other regions. Proportionately more districts in the Southeast and in the West and Southwest strongly favored increasing inservice training, and establishing/increasing minimum competency tests for teachers than those in the North Atlantic and in the Great Lakes and Plains. On competency testing for teachers, the Southeast led all other regions, with one-fourth of the district administrators rating these tests as highly important compared with 9 percent overall.

Implementation of Activities to Improve Academic Achievement

Nine out of 10 districts (91 percent) had implemented one or more of the eight activities between fall 1979 and spring 1982 (not on table). In general, district actions reflected the ratings. Activities rated highly important had been implemented by more districts than activities rated as less important. For ex: 1ple, more than two-thirds (69 percent) of the districts carried out programs to increase daily student attendance between fall 1979 and spring 1982 (table 9). About half the districts reported increasing core credit requirements (53 perceut) and establishing or increasing study skills courses (48 percent).

Inservice training had been implemented more frequently (36 percent) than minimum competency requirements for graduation (27 percent). The three activities rated highly important least frequently also were implemented the least. It should be noted, however, that while only 7 percent of the districts had assigned high importance to increasing homework, 19 percent had implemented this activity in the past 3 years.

Differences in implementation rates by size and metropolitan status of the districts generally mirrored the differences in importance rat-

ings. Large districts and urban districts were more likely to have implemented activities to increase daily attendance, increase minimum competency requirements for graduation, and inservice training compared with small districts and rural districts. In addition, proportionately more urban than rural districts had increased the amount of homework.

Regional differences were also found. For example, the highest implementation rates of activities related to teachers occurred in districts in the Southeast, where 53 percent had increased inservice training and 33 percent had established or increased minimum competency tests for teachers. Districts in the North Atlantic reported the highest implementation rates for increasing homework (35 percent).

Plans for Implementing Activities to Improve Academic Achievement

Increases in daily attendance and study skills courses were planned by about half of the districts (table 10). Administrators in 43 percent of the districts reported plans to increase inservice teacher training, 38 percent intended to increase core credit requirements, and 34 percent expected to increase minimum competency requirements for graduation. Less than one-fifth of the districts planned to implement the activities with the lowest importance ratings: increasing the amount of homework (19 percent), establishing or increasing minimum competency tests for teachers (12 percent), and extending the school day or school year (8 percent).

Although district plans differed by size, metropolitan status, and region, there were fewer significant differences. Often, differences varied from those for importance ratings and implementation reports. The data by district characteristics are presented in table 10.



14

Percent of districts that implemented activities to improve academic achievement in high schools between fall 1979 and apring 1982, by district characteristics: 50 States and D.C., fall 1982

| | | • Establiahed/increased: | | | | | | | | |
|--|-----------------------------------|--------------------------|---|----------------------------|--|---------------------------------------|--|-------------------------------|--------------------------|--|
| Diatrict characteristics | Districta with high schools | Daily attend- ance | Credit require- ments- in core subjects | Study skills couraes | Minimum competency require- ments for graduation | In- service teacher training | Minimum compe- tency tests for toachers | Amount of home- work | School day or year | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| | | | | . (1 | n percents o | f column 2 |) | | | |
| Total | 11,370 | 69 | 53 | 48 | 27 | 36 | 9 | 19 | 7 | |
| Enrollment size: | | | | | | | | | | |
| Less than 2,500 2,500 - 9,999 10,000 or more | 7,787 2,942 641 | 64 78 81 | 53 54 52 | 45 54 53 | 25 30 48 | 32 43 50 | 8 10 14 | 14 30 20 | 7 6 6 | |
| Region | | | | | | | | | | |
| North Atlantic Great Lakes and | 2,079 | 76 | 58 | 58 | 37 | 35 | 1 | 35 | 7 | |
| Plaina | 4,693 .1,688 | 60 75 | 49 56 | 42 38 | 12 40 | 29 53 | < 1 33 | 18 10 | 8 3 | |
| west | 2,911 | 74 | 56 | 55 | 38 | . 38 | 15 | 14 | 7 | |
| detropolitan status: | | | | | | | | | | |
| Rural | 7,280 3,725 366 | 64 76 88 | 51 57 65 | 48 47 52 | 24 32 49 | 34 39 49 | 9 9 <1 | 14 27 37 | 6 7 6 | |

Table 10.--Percent of districts planning to implement activities to improve academic achievement in high schools by 1984-85, by district characteristics: 50 States and D.C., fall 1982

| 1 | | Plan to establish/increase: | | | | | | | | | | |
|-----------------------------|-----------------------------|-----------------------------|---|----------------------------|--|---------------------------------------|--|-------------------------------|--------------------------|--|--|--|
| District characteristics | Districts with high schools | Daily attend- ance | Credit require- ments- in core subjects | Study skills courses | Minimum competency require- ments for graduation | In- service teacher training | Minimum compe- tency tests for teachers | Amount of home- work | School day or year | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| ç. | | | (In pe; rents of column 2) | | | | | | | | | |
| Total | 11,370 | 51 | 38 | 52 | 34 | 43 | 12 | 19 | 8 | | | |
| Enrollment size: | | | | | | | | | | | | |
| Less than 2,500 | 7,787 | 49 | 38 | 51 | 34 | 40 | 12 | 14 | 9 | | | |
| 2,500 - 9,999 | 2,942 | 58 | 36 | 55 | 37 | 47 | 12 | 29 | 6 8 | | | |
| 10,000 or more | 641 | 49 | 46 | 58 | 28 | 53 | 16 | 27 | 8 | | | |
| Region: | | | | | | | , | | • | | | |
| North Atlantic | 2,079 | 62 | 46 | 66 | 41 | 47 | 6 | 32 | 10 | | | |
| Great Lakes and Plains | 4,693 | 40 | 26 | 4.0 | | | | | | | | |
| Southeast | 1,688 | 40 59 | 26 33 | 45 55 | 30 | 69 37 | 4 | 12 | 6 | | | |
| West and South- | 1,000 | ວອ | 33 | 99 | 34 | ₹₹ 3 | 26 | 17 | 4 | | | |
| west | 2,911 | 58 | 54 | 52 | 35 | 49 | 21 | 31 | 12 | | | |
| etropolitan atatus: | | | , | | | \ | | | | | | |
| Rura | 7,280 | 49 | . 36 | 52 | 32 | 43 | 12 | 16 | 7 | | | |
| Suburb | 3,725 | 57 | 41 | - 53 | 40 | 42 | 13 | / 22 | 11 | | | |
| Urban | 366 | 55 | 34 | -48 | 26 | 50 | 10 | 31 | -8 | | | |

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Requirements and Achievement

There were a number of analyses dole on the survey data to explore the relationship between requirements and achievement. These consisted of plots of the data, cross-tabulations, and weighted linear regressions. The regression analyses used the following as independent variables: minutes spent in credit classes; credits required for graduation (excluding physical education/health); credits required in core subjects; whether or not the district required competency tests for graduation; whether or not the district had a formal policy requiring the regular assignment of homework at the senior high school level; percent of seniors taking the ACT or SAT; and percent of students eligible for Title I assistance. Dependent variables were district average composite ACT scores. combined mathematics and verbal SAT scores, and percent of graduates planning to attend 2- or 4-year col-These analyses revealed some positive relationships between requirements and student achievement, but the pattern was not consistent across the three achievement measures (the ACT score, combined SAT score, and the percent of high school graduates intending to go to college).

For example, school districts whose students spent more time in credit courses (reporting high numbers of minutes) appeared to have significantly higher achievement as measured by the mathematics SAT and combined mathematics and verbal SAT than those that reported low minutes (table 11). However, for districts that indicated that the ACT was the more widely administered test, no positive relationship existed between time spent in credit classes and achievement.

There were a number of apparent inconsistencies between student achievement and other requirements. For example, school districts reported similar achievement scores and percents of students intending to go to college regardless of whether the district required high or low numbers of credits (excluding physical education/health) for graduation. In addition, student achievement in districts requiring competency tests for graduation or

regular homework at the senior high level did not differ significantly from achievement in districts without these requirements.

The failure to find a consistent pattern of positive relationships between requirements and achievement may have arisen from a number of factors. First, there is a tendency for school districts with lower student achievement to raise formal requirements as a strategy for improving achievement, while higher achieving districts see less need for this type of action. The survey findings partially support this, since districts with the lowest percents of students eligible for ESEA Title I assistance (currently Chapter 1 of the Education Consolidation and Improvement Act) have the highest achievement, even though their requirements are the same or lower than other districts (not on table). Second, in some districts, higher requirements are the result of recent policy changes to counteract low achievement. These policies may not have been in effect long enough to result in measurable differences in achievement. For example, policies enacted in the 1981-82 school year would have minimal effect on the achievement of students in 1981-82, but may influence the achievement test performance of students in later years. Third, since these data reflect aggregate district averages, significant effects are more difficult to isolate than if students were the unit of analysis. Fourth, the average achievement scores of small districts are subject to significant variability because they are based on relatively few students.

Some variables that have been linked to achievement in other studies could not be measured in this survey. Among these variables are the quality of education, level of student preparation on entering high school, student motivation, teacher expectations, and per pupil expenditure. Control of these variables would permit a more powerful test of the existence or non-existence of a relationship between requirements and achievement at the district level.



Table 11.--Academic achievement differences, by selected district requirements: and D.C., fall 1982

| | Achievement averages | | | | | | |
|--|----------------------|---------------------|--------------------------------|----------------------|-----------------------------------|--|--|
| Requirements | Math SAT score | Verbal SAT score | Combined SAT score | ACT score | Percent going to college | | |
| Total | 461 | 433 0 | 894 | 19.0 | 48,8 | | |
| Minutes in credit classes:1 | | • | ` | • | • | | |
| Low | 454 459 472 | 430 433 437 | 884 892 907 | 19.8 19.2 18.4 | 48.9 47.7 49.8 | | |
| Required graduation credits excluding physical education/health;2 | 0 | * | Liliania Johanna Tarania | , | | | |
| Low | 461 455 ~ ~467 | 435 424 439 | 896 879 904 | 19.1 19.2 18.8 | 48.2 ² 47.4 50.3 | | |
| Policy requiring regula: home- work at senior high school level: | | ٠ | | •. | • | | |
| NoYes | 458 467 | 431 437 | 889 [*] 902 | 19.0 18.8 | 48.3 | | |
| Minimum competency tests required for graduation: | | | | | ; | | |
| No Yes | 460 462 | 433 433 | 893 894 | 19.0 18.7 | 48.1 50.7 | | |

¹Low = 200-270 Medium = 271-329 High = 330-385

²Low = 11.5-16.99 Medium = 17-18.99 High = 19-26

The Fast Response Survey System

The Fast Response Survey System (FRSS) was established by NCES so that education data, urgently needed for planning and policy formulation, could be collected quickly and with minimum burden on respondents.

The FRSS covers six education sectors:

State education agencies
(SEA's);
Local education agencies
(LEA's);
Public elementary and secondary
schools;
Nonpublic elementary and
secondary schools;
Institutions of higher
education;
Noncollegiate postsecondary
schools with occupational
programs.

All 50 States and the District of Columbia are included in the SEA sector. For each of the other sectors, a stratified random sample was designed to allow valid national estimates to be made. The sample sizes range from 500 to 1,000.

A data-collection network involving both respondents and coordinators was developed in each sector. Coordinators assist in the data collection by maintaining liaison with the sampled institutions or agencies. The respondents, selected to report for their institutions or agencies, voluntarily provide the policy-oriented data requested in the questionnaires.

The Fast Response Survey System provides NCES with a mechanism for furnishing data quickly and efficiently. All aspects of the system—the sample design, the network of coordinators and respondents, and the short questionnaires—have been designed with this in mind.

Methodology for the Survey of School Districts on Academic Requirements and Achievement

Samples for the FRSS are often designed to meet more than one objective. The objectives for this study were: 1) to draw a general purpose national sample which could be used for the current study as well as other potential FRSS surveys; and 2) to select the sample so there would be no overlap with the prior school district sample except for certainty units.

To achieve the first objective it was necessary to select a stratified sample from the current 1980-81 school district universe file allocating the sample to size strata approximately oportionate to the cumulative square root of school district enrollment. The second objective was accomplished by matching the 1980-81 universe file with the 1977-78 universe file (on which the prior sample was based) and cross-classifying the new selection strata by the selection strata used in the prior sample. With this matching, it was possible to eliminate the school districts in the prior sample from the 1980-81 universe and set the desired sampling rates for the new sample, accounting for the probability of being selected in the prior sample while achieving the desired allocation of sample (proportionate to the square root of enrollment). A stratified systematic sample of 700 local education agencies was then selected at the prescribed rates.

After excluding districts that did not have high schools, the number of potential respondents for this study was reduced to 571. Questionnaires were mailed in August 1982. Data collection continued until a 93 percent response rate (532 completed questionnaires) was obtained.



The response data were weighted to produce national estimates and a weight adjustment was made to account for survey nonresponse. The weights were calculated for each cell of a two-way tabulation of enrollment size and geographic region. Table A shows the cell and marginal totals used in the weighting.

Standard Errors of the Statistics

The findings presented in this report are estimates based on the FRSS sample of school districts and consequently are subject to sampling variability. If the questionnaire had been sent to a different sample, the responsed would not have been identical; some numbers might nave been higher, while others might have been lower. The estimated standard error of a statistic (a measure of the variation due to sampling) can be used to examine the precision obtained in a particular sample. If

all possible samples were surveyed under similar conditions, intervals of 1.645 standard errors below to 1.645 standard errors above a particular statistic would include the average result of these samples in approximately 90 percent of the cases. For example, for the average mathematics SAT score (table B), the 90 percent confidence interval is from 454.5 to 467.7 (461.1 ± 1.645) times 4.0). If this procedure were followed for every possible sample, about 90 percent of the intervals would include the average number from all possible samples.

Table B presents standard errors for selected questionnaire items. Specific statements of comparison in the text are significant at the 90 percent confidence level or better. Standard errors for other questionnaire items and statistics presented in this report, not included in table B, can be obtained on request.

Table A.--Number of school districts with high schools in the universe and in the sample, by enrollment size and region

| Enrollment | | Region | | | | | |
|------------------|--------|-------------------|---------------------------|--------------|----------------------|--|--|
| 8120 | Total | North Atlantic | Great Lakes and Plains | Southeast f. | West and Southwes | | |
| <u>Jniverse</u> | | | | • | | | |
| Total | 11,370 | 2,079 | 4,693 | 1,688 | 2,910 | | |
| Less than 2,500 | 7,787 | 1,109+ | 3,711* | 784 | 2,183* | | |
| 2,500 - 4,999 | 1,906 | 595 | 580 | ·429 | 302 | | |
| 5,000 - 9,999 | 1,036 | 276 | 264 | 290 | 206 | | |
| 10,000 - 24,999 | 466 | 80 | 105 | 121 | 160 | | |
| 25,000 - 135,999 | 166 | 16 | 31 | 63 | 56 | | |
| 136,000 or more | 9 | . 3 | , Ç | 1 | 3 | | |
| Sample | | | | | | | |
| Total | 532 | 108 | 181 | 105 | 138 | | |
| Less than 2,500 | 216 | 30 | 99 | 20 | 67 | | |
| 2,500 - 4,999 | 115 | 39 | 33 | 26 | 17 | | |
| 5,000 - 9,999 | 92 | 23 | 26 | 26 | 17 | | |
| 10,000 - 24,999 | 62 | 11 | 13 | 17 | 21 | | |
| 25,000 - 135,999 | 38 | 2 3 | 8 | 15 | 13 | | |
| 136,000 or more | . 9 | 3 | 2 | 1 | 3 | | |

^{*}Adjusted by sample data to exclude misclassified districts.

Source: U.S. Department of Education, National Center for Education Statistics, School District Universe.



| , Item , | Estimate | Standard error |
|--|--------------|--|
| National averages: | • . | |
| Minutes of credit classes per day for a typical student | 298.4 | 2.0 |
| Credits required for graduation | 19.8 | |
| Composite ACT score | 19.6 | . 1 |
| Nathematics SAT score | 19.0 | .1 |
| Nationalics Sal Score | 461.1 | 4.0 . |
| Verbal SAT score | 432.8 | 3.4 😽 |
| Percent of graduates planning to attend 2- or 4-year colleges | 48.8 | .8 |
| Percent of students eligible for Title I assistance | 21.2 | .7 |
| Percent of all districts: | • | |
| Requiring minimum competency tests for graduation | 25.4 | 1.7 |
| With formal policy requiring regular assignment of homework at the senior high school level | • | |
| Indicating that increasing daily attendance is highly important | | 2.2 |
| for improving academic achievement | 66.0 | 2.6 |
| is highly important for improving academic achievement | 46.8 | 3.2 |
| Indicating that establishing/increasing requirements for in- service teacher training is highly important for improving | | J. J |
| academic achievement | 27.6 | 2.1 |
| indicating that extending the school day or year is highly | | Same of the second second second |
| important for improving academic achievement | 4.7 | 4 |
| That implemented programs to increase daily attendance | | : Named |
| between fall 1979 and spring 1982 | €8.7 | 2.5 |
| That established/increased credit requirements in core subjects | | |
| between fall 1979 and spring 1982 | 53.4 | 3.0 |
| That established/increased requirements for inservice teacher | | |
| training between fall 1979 and spring 1982 | 35.9 | 2.1 |
| That increased the amount of homework between fall 1979 and | 30.5 | 2.1 |
| spring 1982 | 100 | |
| • | 18.8 | 1.9 |
| Averages and percents by district characteristics: | •• | |
| Average credits required for graduation: | | د |
| Districts in the Great Lakes and Plains | 19.4 | . 2 |
| Districts in the West and Southwest | 21.4 | . 2 |
| _ | 21.3 | • 2 |
| Average mathematics SAT score: | | |
| Districts in the North Atlantic | 464.0 | 5.0 |
| Districts in the Great Lakes and Plains | 478.0 | |
| Districts in the Southeast | 470.0 | 12.1 |
| Subumbon districts | | 8.0 |
| Suburban districts | 467.6 · | 5.1 |
| Urban districts | 449.6 | 9.5 |
| Paramata and district and distr | | The same of the sa |
| Percent of districts indicating that increasing daily attend- | .2 | ₹•• |
| ance is important for improving academic achievement: | | • |
| Large districts | 82.6 | 3.3 |
| Medium-size districts | 59.0 | 3.7 |
| Districts in the North Atlantic | 61.9 | 6.5 |
| Districts in the Southeast | 73.6 | 4.6 |
| Urban districts | 73.6 89.6 | |
| | | 4.6 3.7 |
| Rural districts | 63.4 | |



FAST RESPONSE SURVEY SYSTEM

U. 5. DEPARTMENT OF EDUCATION NATIONAL CENTER FOR EDUCATION STATISTICS WASHINGTON, D.C. 20202

Form approved OMB No. 1850-0503 App. Emp. 11/82

| | | | RICTS ON ACADEMIC | required to r | s authorized by law (20 U. espond, your choperation i omprehensive, accurate, an | s needed to |). Whil | e you resul | are n | ot | |
|---|--|----------------------------------|---|--|---|--------------------------|---------------------|------------------|----------------|--------------|--|
| | | | rpose of this survey: | nimum of 200 mi | n. per week (275 min. for | a lab. class |) for 36 | weeks | | | |
| I. p | lease com | plete the | e following items for the combined effect of | the 1981+82 scho State And dist | ool year as they apply to rict requirements/practice | only the hig | h school | s in y | our | | |
| A. Number of class periods in a day that a typical student takes for credit Example: Students are generally required to take 5 class periods for credit in a distudents take a 6th period for credit; the other students are in a stuly half or so Therefore, a typical student takes 6 periods for credit. | | | | | | | re than credit a | 50% of ctivit | the y. | | |
| | Average | number | of minutes per period | (excluding time | between c'asses) | | | | | | |
| | | | | | ion in your district | | | | | | |
| С | | | | | Science : English | | | ; | | | |
| | | | | | ; PE/health | | | • | | | |
| | | | | | rue the required units of | | | 7-12 | | | |
| ~ | | | | | during the above grade sp | | | | | | |
| F | | | | | of credit, if any, earner they graduate? | | grade sp | oan | | ٠٠ | |
| | | | | | sh/language arts, math, s | | 1 | - 4. 1 | | | |
| | | | | | n their senior year? | | I Studie | 85/h18 | tory, | | |
| <u> </u> | | | | | | | | | _ | | |
| | | aciioo | or each area in which y I year applicable at le | our district an east to your <u>hig</u> | d/or State had formal writh schools. | tten policies | or requ | iremu | its fo | r | |
| | <u></u> , No | | Dimum compotoncy toots | for high orbor | 1 | | | | | | |
| ' | | M: | ith ! !: English/lan | guage arts | l graduation. In which and the state of the | reas are test | s requir | ed: | | | |
| ł | i i | | | | r subject matter competend | | | | | | |
| | | | | | ch areas: Math ; Scien | | | | | | |
| i | 1 | | | | ew or already-employed tea | | | | | | |
| | | | | | : English/language ar | | | - | | | |
| | C. Is it: Check h importa followi improvi | igh, med noe to d ng activ | that the results, of holium, or low to indication in the cach ities (relative to each mic achievement in high | e the current of the | B. Check yes or no for ea has implemented in hig 1981-82 school years. C. Check yes or no for ea is planning to implemented school year. | ch of the ach schools be | tivities | your e 1979 | distr -80 a | ict nd | |
| | | | | | | | В. | | | c. | |
| High | Importance | γ | Activities | to improve acad | iemic achievement | | Implem | ented | Plan | ning | |
| | Medium | f.ow | 1 Ingresse units of | aredia required | in core subject areas | | Yes | No | Yes | No | |
| | | | | | ency requirements for grad | | | | | | |
| | ··· | | 3. Increase amount of | | Toda remember to grad | | | | | | |
| | ··· · | | 4. Extend the school of | | ol year | | | | L | | |
| | | † | 5. Increase daily atte | | • | · | | | | | |
| | | | 6. Establish/increase | courses to impr | ove students' study skill | s/habits | | | | | |
| | | | 7. Establish/increase | requirements fo | r in-service teacher trai | | - | | | | |
| • • | • | | subject matter comp | | | | | | | | |
| | l | ł | | | ncy tests for teachers | | L1 | | | | |
| | | | following stems for th | | · | | | | | | |
| | | | | | Title I assistance | • | | | | | |
| | | | absenteeism in your <u>hi</u> | | | Annuar 1 | | _ • - | | | |
| ` ' | | | | | te ACT score (/ | | | | | | |
| | | | ited percent of distric | | | . not avaliab | .e, give | score | o lor | | |
| 1. . | | | | | to go to a 2 or 4 year co | ollege | . | | | | |
| , r s0r | completi | ng form | | | Title | - "- - | | | _ | _ | |
| | | | | | Statei | Phone () | | ~ | | | |